# Canada-India Mining DA

### Indian Energy DA

#### The Canadian-Indian nuclear mining deal is groundbreaking and needed to facilitate nuclear power growth in India.

Steven Chase and Kim Mackrael, 2015

“Canada, India agree to $350-million uranium supply deal”, The Globe and Mail, Ottawa. <http://www.theglobeandmail.com/news/politics/canada-india-agree-to-major-uranium-supply-deal/article23967494/>

**Canada and India are back in the nuclear business together after a decades-long moratorium with a uranium sale to New Delhi that opens the door for Canadians to profit from a growing Indian appetite for power from reactors.** Prime Minister Stephen Harper and Indian Prime Minister Narendra Modi unveiled a $350-million deal on Wednesday for Canada’s largest uranium producer, Cameco Corp., to supply 3,220 metric tonnes to power India’s reactors over the next five years. Canada banned exports of uranium and nuclear hardware to India in the 1970s after New Delhi used Canadian technology to develop a nuclear bomb. Mr. Modi is the first sitting Indian prime minister to make a bilateral visit to Canada in more than 40 years – before relations chilled after New Delhi’s nuclear testing. “Canada giving uranium to India is a mark of trust and confidence,” the Indian leader said. Mr. Modi, whose country aims to increase its share of electricity generated by nuclear power to 25 per cent by 2050 from 4 per cent today, told reporters in Ottawa how highly he prizes the radioactive ore. “For me, uranium is not just a mineral. For me, it is an article of faith [and] trust,” Mr. Modi said. “This is to save the world, in effect, to save the world from global warming and climate change.” Cameco CEO Tim Gitzel said the Indian uranium deal represents a small portion of annual sales. For instance, Cameco expects to sell nearly 15,000 metric tonnes in 2015. The agreement paves the way for the Saskatchewan company, the world’s second-largest uranium producer, to sell more in the years ahead as India vastly expands nuclear power generation. India’s nuclear energy building program is second only to China’s in scale. “Today, they have 21 nuclear reactors operating. They have six under construction. They’re building dozens more over the next few years,” Mr. Gitzel said in an interview. He said much of the long-term growth Cameco sees in the uranium industry will come from India. “We want to be the preferred seller to India,” he said. “Today is just the start of the relationship.” Mr. Gitzel said Canada’s competitors include Kazakhstan, the world leader in uranium production, as well as Russia and the French. Nuclear trade between Canada and India has the potential to go far beyond uranium, extending to exports of hardware. However, potential foreign hardware suppliers fear that, under India’s nuclear liability law, they could be held legally responsible in the event of a nuclear power catastrophe. A deal reached by U.S. President Barack Obama and Mr. Modi in January appears to represent a breakthrough on this matter. The leaders agreed the legal liability of U.S. nuclear technology suppliers would be limited. New Delhi would presumably extend this accommodation to other country’s suppliers.

#### Prohibiting nuclear power trades off with massive structural violence – hundreds of millions of poor Indians will be pulled out of poverty by Indian reactors.

James Conca, 2015

Conca is a Trustee of the Herbert M. Parker Foundation and consult on strategic planning for the EPA, He has been a member of Sierra Club, Greenpeace, the NRDC, and the Environmental Defense Fund for over 25 years, He also has been a member of the American Nuclear Society. “Nuclear Options – Obama In India”, Forbes.

But the [nuclear deal](http://www.brookings.edu/research/opinions/2015/01/20-operationalizing-us-india-civil-nuclear-cooperation-einhorn-sidhu) was the big one. When India developed their own atomic weapons in the 1970s, the relationship between America and India became rocky, to say the least. But **nuclear energy is a huge part of India’s energy future, as a way to bring** hundreds of millions of people **up into the middle class without increasing the use of coal.** Therefore, it was in the best interest of both countries to find a way to address the nuclear issues. India’s nuclear industry is largely indigenous and relies mainly on small pressurized heavy-water reactors. The country rejected the Nuclear Non-Proliferation Treaty and was subsequently excluded from international nuclear trade as a result of the lack of safeguards brought in under the treaty by other countries. This issue was corrected outside the non-proliferation treaty, and India was then able to buy uranium, nuclear fuel and services on the open market. As a result, the existing nuclear power plants in the country have attained record performance. The time is ripe for outside investment in nuclear and this agreement could not have come at a better time. Over the next 25 years, India needs to raise about 800 million people up out of poverty by producing 3 trillion kWhs of electricity per year. That means India must triple its present power production by 2040. They plan on nuclear power to supply a considerable portion, as much as a third. And they want the United States to be a major contributor to this effort. In particular, the nuclear agreement reached between Obama and Modi solved a six-year stalemate over India’s nuclear liability law that shut American nuclear firms out of the Indian market ([Hindustan Times](http://www.hindustantimes.com/india-news/india-us-reach-agreement-on-landmark-on-nuke-deal/article1-1310542.aspx)). Under global norms, the primary liability lies with the power plant operator, but all nuclear power plants in India are run by the government-owned Nuclear Power Corporation of India Ltd (NPCIL). So India’s law made foreign equipment suppliers responsible for any future accidents. That was not acceptable to foreign companies, especially in France and the United States, so the new plan stipulates that insurance is bought by the companies contracted to build the nuclear reactors who would then recoup the cost by charging more for their services. Thisoutcome was predicted by [Neutron Bytes](http://neutronbytes.com/2014/11/30/breaking-indias-pm-modi-seeks-changes-to-nuclear-liability-law/)last fall. Indian Foreign Secretary Sujatha Singh said the new arrangement doesn’t require the nation to weaken its strict liability laws to which U.S. companies have objected in the past([Times of India](http://r.smartbrief.com/resp/gteCCraKwqCNaKpaCidKqLCicNaqWt?format=standard), [RT of Russia](http://r.smartbrief.com/resp/gteCCraKwqCNaKpbCidKqLCicNbbhM?format=standard)). What is the size of the [commercial nuclear market in India](http://www.world-nuclear.org/info/Country-Profiles/Countries-G-N/India/) that this agreement opens up to American firms? Six new reactors are under construction in India, and 40 more are planned. In just the next 20 years, India expects to increase its present nuclear fleet from 21 reactors, producing 5 GWe, to over 60 reactors producing 40 GWe (see figure above). However, 100 reactors are planned by mid-century to produce the better part of a trillion kWhs per year. This represents almost a trillion dollars in likely nuclear builds and related industries. Competition for this market is fierce among the U.S., French, Russian, and South Korean nuclear companies, but the U.S. still does nuclear better than all the rest, and India has wanted to work with us for a long time. Dr. Nachiketa Das, Professor of Geology at Ravenshaw University of Cuttack in India, feels that the Indo-U.S. Nuclear Deal signed by President Obama and Prime Minister Modi “will provide the much needed legitimacy to the entire nuclear establishment of India on the world stage.” Which translates into a big expansion of nuclear activity with many international partners. Having worked in uranium geochemistry to clean-up of Fukushima, Professor Das even predicts that India will close the entire Nuclear Fuel Cycle. The push to expand nuclear five-fold in India comes from coal still being the king, providing over 70% of the country’s electricity. Instead of building 500 new coal-fired power plants, India wants to build 100 new nuclear power plants. The government’s plan is ambitious but doable, especially with United States’ assistance.

#### Without nuclear power India defers to coal – pollutes environment and blood while greatly impacting the health of the rural poor.

EAS Sarma, 2015

Sarma is the former secretary of India’s Ministry of Power and Finance. “Coal is not the answer to India's energy poverty, whatever Tony Abbott says” The Guardian.

Burning coal, whether local or imported, generates large quantities of fly ash containing toxic pollutants like lead, zinc, arsenic, cadmium, sulfur, mercury and radioactive uranium/ thorium isotopes, which adversely affect the health of the people near the power stations, often the rural poor, whose disadvantage is worsened by these health impacts. Studies on people residing near coal-based power plants along the border of Uttar Pradesh and Madhya Pradesh have revealed unsafe levels of mercury in their blood samples, at times as high as 110 parts per billion. Similarly, studies around a coal power plant in the Punjab have indicated widespread radioactive contamination of the environment, impacting the health of pregnant women and children. Such huge social costs outweigh the perceived benefits of coal. Though a large coal producer, India’s domestic production of coal has lagged behind the demand, increasing the country’s dependence on imports, which are presently 180 million tonnes. Most of this coal comes from Indonesia, which is cheaper than Australian coal. The Institute of Energy Economics and Financial Analysis has shown that the cost of producing electricity in India using Australian coal from the Galilee Basin is two times the current average wholesale cost of electricity. This makes Galilee Basin coal too expensive for India. To address energy poverty and energy security, **India’s focus must be on encouraging locally-generated and indigenous renewable energy systems** and moving towards decentralised electricity generation based on renewables. Even if one percent of the country’s land area were to be used to harness the abundantly available solar insolation at an efficiency of 10%, the country could generate 570 times India’s current electricity demand. Australian coal, like any other coal, is not good for Indian people’s health and it will not deliver electricity to those who are currently living in energy poverty. It’s time for the Australian government and coal industry to realise that the era of Australian coal exports is coming to an end. What Indians need is affordable, locally-generated renewable energy, not coal.